

Claims

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1. A drill head for preparing the bone of two opposing intervertebral bodies to accept a predetermined shape of an endoprosthesis comprising:

a form cutter having a profile capable of imparting a shape to the bone of intervertebral bodies which mates with the predetermined endoprosthesis surface shape;

drive means for providing a driving force to the form cutter; and

means for housing the form cutter and the drive means,

wherein the profile of the form cutter is of a height capable of being admitted into the space between two opposing intervertebral bodies and the head can perform milling action in a direction angled away from the direction of head entry into a space between opposed bodies.

2. The drill head of Claim 1 wherein the form cutter has a convex shape.

3. The drill head of Claim 2 wherein the form cutter is provided with a beveled gearing surface.

509
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4. The drill head of Claim 2 wherein the form cutter is provided with a groove about its perimeter.

3 5. The drill head of Claim 1 wherein the drive means comprises a drive shaft operatively coupling the form cutter to a drive source.

4 6. The drill head of Claim 5 wherein a distal end of the drive shaft is provided with a pinion gear which cooperates with the form cutter to impart a rotary motion to the form cutter.

5 7. The drill head of Claim 6 wherein a proximal end of the drive shaft is provided with a coupling means for coupling the drive shaft to the drive source.

6 8. The drill head of Claim 1 wherein the drive means comprises a belt operatively

linking the form cutter to a drive source

7/ 9. The drill head of Claim ~~8~~ wherein the belt loops about the perimeter of the form cutter.

B 8/ 10. The drill head of Claim ~~8~~ wherein the drive means further comprises a drive shaft operatively coupled to the belt.

9/ 11. The drill head of Claim ~~10~~ wherein the drive shaft is provided with a pulley about which the belt is looped.

10/ 12. The drill head of Claim ~~11~~ wherein the drive shaft is further provided with a coupling means for coupling the drive shaft to the drive source.

11/ 13. The drill head of Claim 1 wherein the housing is provided with attachment means for attaching the drill head to a drive source.

12/ 14. The drill head of Claim 1 wherein the maximum height of the profile of the form cutter is approximately nine millimeters.

13/ 15. The drill head of Claim 1 where in the cutter is provided with a cutting edge so as to give the drill head the ability to cut in the direction of tool head entry into the space.

5-8 947 16. A drill head for preparing the bone of two opposing intervertebral bodies to accept the concaval-convex shape of an endoprosthesis comprising:

a form cutter having a support shaft capable of imparting a concave shape to the bone of intervertebral bodies;

drive means for providing a driving force to the form cutter, the drive means including a drive shaft; and

means for housing the form cutter and the drive means,

wherein the angle between the support shaft of the form cutter and the drive shaft is approximately 96°.

14 ~~17~~

The drill head of Claim 16 wherein the form cutter has a predetermined profile.

17 ~~18~~

The drill head of Claim 17 wherein the maximum height of the profile of the form

cutter is approximately nine millimeters.

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